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CHURCH OF JESUS CHRIST
OF LATTER-DAY SAINTS.

UTAH



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THE CHURCH OF JESUS CHRIST
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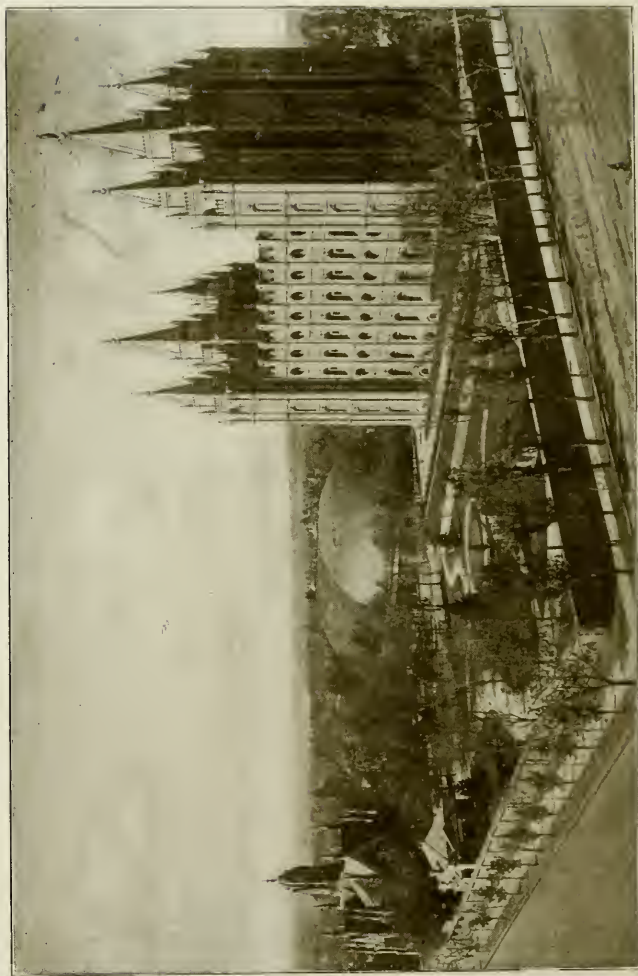
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UTAH

A Place of Abundant Opportunities
for Prosperity in Business,
Industrial and Home
Life



Issued by
THE UTAH COMMISSION
for the Alaska-Yukon-Pacific Exposition
at Seattle, Washington, June 1st to October 16th, 1909



TEMPLE BLOCK



GOVERNOR WILLIAM SPRY



HENRY GARDNER
D. C. JACKLING
RUDOLPH KUCHLER

THOS. HULL
R. E. ALLEN
C. P. OVERFIELD

Utah Commissioners for the Alaska-Yukon-Pacific Exposition

A Glance at Utah.

Where the Ever-Increasing Prosperity of the People
Almost Passeth Understanding.



SATISFACTORY as may be the present prosperity of the people of Utah, and splendid as may be the possibilities of development of the material resources of the State, these lines regarding them are not indited to form a glowing word-picture thereof, but merely to present a plain and simple recital of facts that are of both interest and value to tourists, investors, and home-seekers in the great intermountain region; and with this purpose in view, the utmost care has been exercised in providing data that can be relied upon as accurate.

History.—The transformation of Utah from an arid waste to that condition where the manufactures, the commerce, the gold, the silver, the copper, the lead, the iron, the coal, the precious stones and rare metals, the grain, the fruit, the milk and the honey of the Promised Land of the Ages, have become a reality in our own possession, covers a period of less than two-thirds of a century of industry, energy, and rare good fortune, in bringing into the light remarkable material resources whose presence under so forbidding an aspect

was far from being expected, in human comprehension. The unexpected, however, became the evident fact; yet the development of Utah scarcely has begun, and the opportunities at hand that operate for prosperity barely have been touched.

The beginning of that transformation was when the great leader and colonizer, Brigham Young, with his band of 143 men, 3 women, and 2 children, comprising the first company of Utah Pioneers, entered the valley of the Great Salt Lake on July 24, 1847. A few explorers and trappers had preceded them, but only to condemn the place as one of Nature's chief inhospitable regions; it was left to the Mormon Pioneers of 1847 and subsequent years to entertain and apply the thought of making Utah's vales the home of industrious, civilized, cultured, prosperous communities.

From 1847 these immigrants poured in from beyond the great plains between the Missouri River and the Rocky Mountains, until, in 1850, the population of Utah was 11,380 souls; in 1860 it was 40,273; in 1870, 86,786; in 1880, 143,693; in 1890, 207,905; in 1900, 276,749; and now, 1909, it is estimated at nearly 400,000 people.

The first Governor of Utah was Brigham Young, who was appointed by the President of the United States, and remained in office till 1858. All other Governors of Utah up to January 4, 1896, were appointed by the President; but on the date just given Utah became the forty-fifth State of the Union, with all the rights and privileges that belong to the individual members of the sisterhood of States.

The first means of transportation into Utah was the ox-team and months of weary travel; now the best of finely-equipped railway trains, over the Union Pacific railroad, which was completed to Ogden, Utah, in 1869, and Denver and Rio Grande, which reached Salt Lake City in 1883, bring the traveler from the

east in a few hours' time and with every comfort; while reaching westward to the Pacific Ocean are the Southern Pacific, the San Pedro, Los Angeles & Salt Lake, and the Oregon Short Line railways and their connections; the now practically completed Western Pacific railroad forming the fourth of these great westward lines.


Geography.—The Territory of Utah, created in 1850, extended over Western Colorado, Southern Idaho, Southwestern Wyoming, and Nevada; but as these commonwealths were created the boundaries were fixed as the State now exists, 285 miles east and west by 345 miles north and south, with a niche in the northeast corner for a section of Wyoming. Utah has an area of 84,790 square miles, is mountainous throughout, its great ranges broken by broad and fertile valleys, and its hills containing extensive deposits of almost every known valuable mineral.

Climate.—No section of earth has a variety and equability of climate better adapted at all seasons to the comfort and longevity of humanity than Utah. It has at once great altitude and sea-level, yet its lowest point is far, far above the ocean; its "sea-level" is the wonderful Great Salt Lake, 4200 feet above the ocean, while the peaks of the Wasatch range near by reach skyward to a height of over 12,000 feet above the sea. The variation in altitude accounts in great measure for the diversified crops produced in different sections, and for the remarkable healthfulness and invigorating power of Utah's "out-of-doors" climate. Spring begins in March, and the seasons come regularly. The yearly average of cloudless days is 200, yet the pressure of intense heat is unknown; 100 days of the remaining portion of the year are classed as but partly cloudy, so that the really dark, drear and stormy days are comparatively few. The average summer temperature in Salt Lake City is 72 degrees,

and the average winter temperature 32 degrees. The average precipitation in the valleys is 11.96 inches, but is much greater among the hills and mountain peaks that store the snow for mountain streams.

Healthfulness.—The ever-moving mountain breezes are foes to bacteria and disease, and eliminate the danger from great epidemics. In Salt Lake City, the most thickly settled portion of the State, the death-rate is only 12.17 per thousand. A notable feature of the vital statistics is the proportion of deaths from old age; and the general healthfulness and vigor of the people is not exceeded on any part of the habitable globe.

The People.—Utah extends a cordial welcome to the stranger within her gates. In all communities everywhere there are all kinds of people, even to those who delight in the recital of hobgoblin stories about their neighbors and who are prone to “see spooks” themselves. Occasionally you may meet one of these; but the people of Utah, of every creed, will compare favorably in kindness, courtesy, intelligence, hospitality, and business ability, with those of any part of the Union. They are proud of Utah, and are energetically developing her resources; better church-people, fairer and more upright business-men, brighter school children, and more capable instructors, are not found anywhere; there is everything in the people for a happy abiding place in Utah for all who will.

 **Still Plenty of Room.**—A suggestion of the opportunity for development in the line of population is afforded in the present distribution of the inhabitants of the State. One-third of these are located in Salt Lake City and county, and more than one-half of the people in Utah reside within a radius of 50 miles from Salt Lake City. The second largest city in the State, Ogden, is only 36 miles from Salt Lake City, and the

third largest, Provo, 48 miles. Agricultural, manufacturing and mining opportunities yet exist in every part of the State, awaiting the enterprise and energy of a still further increased population to utilize them.

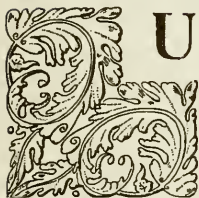


THE MONUMENT CORNER



CITY AND COUNTY BUILDING
SALT AIR PAVILION

What Tourists Wish to See



UTAH is abundantly provided with the wonderful eccentricities of nature, from the weird and fantastic shapes in the mountain ranges to the strange creations of the desert. Not all of these are within reach of the tourist who makes a hasty all-rail trip across the continent; many are reserved for those who would camp-out in summer trips in canyons, hunting or fishing by the way, and taking into their lungs the life-prolonging ozone of the high mountain fastnesses. But of those more readily accessible, a few are here named, as are also other places of interest connected with the history and development of the State.

Utah's Salt Sea.—The Great Salt Lake is Utah's most interesting natural phenomenon, lying close to her chief cities, Salt Lake and Ogden. It is 70 miles long by 30 miles wide, and contains a number of large islands, on one of which are several catalo—the offspring of a cross between wild buffalo bulls and pure bred Hereford cows. The average depth of the lake is 15 feet, and the water carries from 19 to 22 per cent. of salt, according to the season of the year. Its specific gravity is so great that it sustains the human body in any position; and with scarce an effort at adjustment bathers keep their heads above the surface in perfect safety. Saltair, the great lake pavilion-resort, is 16 miles from Salt Lake City, with a good railway service connecting them.

Temple Block.—A square of 10 acres, in the heart of Salt Lake City, and surrounded by a substantial adobe wall constructed over 50 years ago. Within the enclosure are the great Mormon Temple, 210 feet high, surmounted by the figure of an angel proclaiming the everlasting gospel, the Temple itself covering 18,563 square feet, and built of native granite at a cost of \$3,469,118; the Mormon Tabernacle, 150 by 250 feet, covered by a great dome without central support, and containing a great pipe organ of wonderful quality of tone, on which free recitals are given, at stated times, to visitors; the Salt Lake Assembly Hall, a substantial church edifice built of granite; and the Bureau of Information building, where responsible people furnish, gratuitously, information concerning the Mormon people and Utah generally.

Lion and Beehive Houses.—A short distance east from the Temple Block; buildings formerly occupied by Brigham Young and his family, and now used as the offices of the Mormon Church; on the opposite side of the street are the church historian's office and the Amelia Palace, a spacious dwelling erected by Brigham Young for his wife Amelia Folsom Young.

Eagle Gate.—One square east of the Temple Block and near the head of State Street, the longest street in Utah.

Salt Lake City and County Building.—Half a mile south of Eagle Gate, facing State Street, occupied by city, county, and state offices; built of native gray sandstone at a cost of nearly \$1,000,000. A little more than a square away is the Postoffice building, a handsome structure erected by the Federal Government, and opposite to which are Salt Lake City's "skyscrapers," eleven stories in height.

Brigham Young Monument.—Erected in honor of the Utah Pioneers; located in Main Street, near the Temple Block, Salt Lake City.

Ensign Peak.—Three miles north of the Eagle Gate, rises 1500 feet above the center of Salt Lake City, within the city limits; so-named from the unfurling of the American Flag there, by the Mormon Pioneers, shortly after their arrival in Salt Lake Valley.

Fort Douglas.—A well improved military post adjoining Salt Lake City on the east; reached by street car.

Liberty Park.—The principal park in Salt Lake City, enclosing 110 acres, formerly owned by Brigham Young, as a farm.

Warm and Hot Springs.—Bathing resorts in the northern section of Salt Lake City; natural hot sulphur water, possessed of remarkable curative powers.

Ogden Hot Springs.—Natural hot mineral waters, and sanitarium, 10 miles north of Ogden.

Hot Pots.—A peculiar lime formation full of natural bath rooms and a supply of natural hot water, near Heber City, 50 miles from Salt Lake City.

Lakes.—Forty miles south of Salt Lake City is Utah Lake, a beautiful sheet of fresh water covering an area of 125 square miles; the Jordan River flows from it to the Great Salt Lake; near Utah Lake are the great Utah onyx quarries. Bear Lake, Panguitch Lake, Fish Lake, and many others, attract the attention of summer pleasure seekers.

Mountain Summer Resorts.—The Hermitage and the Oaks, in Ogden Canyon; Castella, in Spanish Fork Canyon; Brighton, near the famous picturesque lakes and scenery in Big Cottonwood Canyon; Wasatch, in Little Cottonwood Canyon, whence the granite stone for the Mormon Temple in Salt Lake City was hauled, chiefly by ox-teams; and resorts in Provo, Parley's, Logan, and other canyons, are surrounded by scenes of inspiring sublimity. The canyons of Utah are de-

lightful drives, and present some of the most magnificent scenery in the world. Many of these are within easy reach of Salt Lake City, Ogden, Provo, Brigham City, and Logan.

Park City, Bingham Canyon, Tintic and Mercur.—Centers of the great mining activity in Utah, each of which affords a most instructive and entertaining visit, and field for investment.

Grand Canyon of the Colorado.—This titanic gorge through which flows the Colorado River, presents some of its most inspiring aspects within the confines of Utah.

Devil's Slide and Devil's Gate.—These and a host of other natural phenomena catch the eye of the traveler coming into Ogden from the East. The Lucin Cut-off for more than thirty miles across the Great Salt Lake almost at its center affords a remarkably entrancing scene to travelers westward from Ogden.

Saline Lands.—Fifty miles west of Salt Lake City, the Western Pacific Railway runs for miles on a bed of solid salt from 12 to 40 feet thick and 8 to 10 miles wide. In Salina Canyon, 150 miles south of Salt Lake City, are mountains of crystal salt.

Natural Bridges.—There are many of these; one in the San Juan county in Southeastern Utah has a span 330 feet long and 222 feet high, of solid sandstone.

Cliff Dwellings.—Southeastern Utah is abundantly provided with relics of the cliff-dwellers, which are of great interest.

Utah Sunsets.—There are sunsets everywhere, but none so gorgeous, so sublime, so wondrous in tints and shades, as a summer sunset on the Great Salt Lake; it is beyond the power of pen or brush to depict.

Railway Service.—Wherever a person may go by rail to one of the many interesting sections of the State, whether by steam or electric line, he is assured of comfort, promptness and courtesy not excelled anywhere.

Nature's Bank Vaults

When one realizes that the market value of the gold, silver, lead and copper which has been taken from Utah mines aggregates \$360,000,000, and that 1909 will be the year of greatest production up to date, he can begin to comprehend that Utah's mountains are indeed Nature's bank vaults, from which the wealth to be brought forth is beyond the power of man to estimate. A prominent visitor to Utah in early days saw little use for the broken mountain ranges, and said the chief fault he had to find with Utah was that it had "so much of its land turned on edge," But the men who have run the tunnels, the drifts, the shafts and the stopes in Utah mines have shown that the very feature to which objection was made is gilt-edged to modern enterprise and energy. The year 1909 will double in production of metals the returns of 1908, yet in the last-named year the following figures were reached:

Copper,	73,448,438 pounds,	value....	\$ 9,638,801
Gold,	250,082 ounces.	value....	5,165,194
Silver,	9,298,423 ounces,	value....	4,950,280
Lead,	103,591,786 pounds,	value...	4,259,819
Zinc,...	5,936,000 pounds,	value,...	277,339

Total,..... \$24,391,533

During 1908, thirteen Utah mines paid aggregate dividends of \$5,537,716; and this is but a fair beginning which will be eclipsed in 1909.

The More Notable Mining Districts

Park City and Alta.—These include a territory 20 miles square, at the head of the Little Cottonwood and Big Cottonwood canyons. The Park ores are generally a silver-lead galena, lying mainly in beds between lime and quartzite, and ranging in value up to \$200 a ton.

American Fork.—Located in the same zone as Park City and Alta, is just beginning to be developed in an important way, and is shown to have vast bodies of ore, running into high values.

Bingham Canyon.—Situated 23 miles southwest of Salt Lake City, is the largest mining camp in Utah, and probably the largest copper camp in the world; it also produces vast quantities of the other commercial metals. Steam shovel mining has been inaugurated, making necessary the erection of reduction plants having capacities varying from 6000 to 10,000 tons per day.

Stockton and Ophir.—These camps are on the western slope of the Oquirrh range, opposite Bingham Canyon.

Mercur.—Fifty miles by rail southwest of Salt Lake City; Mercur is the great gold camp of the State.

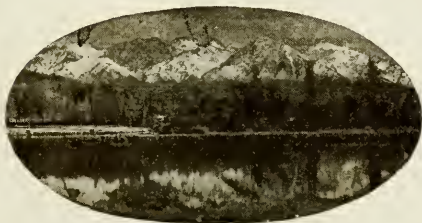
Tintic.—The towns of Eureka, Mammoth and Silver City are in the Tintic district, the center of which is 85 miles by rail southwest of Salt Lake City. The ores of the district are silver and lead, with some copper. The mines of this section have come to the front as dividend payers the past few years.

Gold Mountain.—A gold-producing district 200 miles south of Salt Lake City; Kimberly is its principal town.

Frisco and Beaver.—Two hundred and fifty miles south of Salt Lake City. The characteristic metals are silver and lead.

Uintah.—The opening of the Indian reservation in Uintah and Wasatch counties has given a great field to enterprise in this district, which has gold, silver, lead and the hydro-carbons.

Other Districts.—Deep Creek, silver; Marysvale, gold; Stateline, gold; LaSal, gold; Copper Mountain, copper; and other partially developed districts, are scattered throughout the State, with every prospect of their rivaling in richness those which have received more advanced attention.



Smelting and Milling

During the past ten years a wonderful growth has taken place in the smelting and milling of ores in Utah, until now the State is one of the largest ore reduction centers in the world. The American Smelting and Refining Company, the Utah Consolidated, Yampa, United States, Independent, Knight, International and Majestic smelters, and the Utah Copper, Boston Consolidated, Newhouse, Golden Gate, Sacramento, Boston-Sunshine, Daly-West and Silver King Coalition reduction mills, are the chief features in this stupendous work. The American Copper Smelter at Garfield, near Salt Lake City, cost \$5,000,000, while the Utah Copper and Boston Consolidated concentrators at the same place cost \$6,000,000 in round numbers. The International Smelting and Refining Company is building in Tooele county, 30 miles from Salt Lake City, a plant that will cost \$8,000,000. There is plenty of business for all of these, and more.



Coal, and Hydro-Carbons

Coal and Coke.—More than twenty-five million tons of coal has been taken out of Utah coal mines, and the coal supply has been scarcely scratched, so to speak. During 1907 and 1908, 3,812,100 tons of coal was taken from Utah mines, the retail price of this product exceeding \$21,000,000. The coal-producing area of the State is conveniently adjacent to all other parts, and bituminous coal exists in such vast quantities as to be beyond the reach of even an approximate estimate. The supply is practically inexhaustible, and generations of mining will make little impression on it. The coal belt is from 10 to 25 miles wide and 600 miles long, stretching in a zigzag course from the northeastern to the southwestern corner of the State. One county—Carbon—produced 1,666,853 tons in 1908.

The coke industry of the State is yet in its infancy. The production in Utah in 1907 and 1908 was 484,195 tons.

Asphaltum, Gilsonite, Elaterite, Ozokerite, and other Hydro-Carbons.—These appear principally in Uintah County, and cover an area of over a thousand square miles. Asphaltum, used chiefly for street-paving, is found there in practically inexhaustible quantities, in limestone and sandstone formation, and in flowing springs and lakes. The largest gilsonite vein known in Utah is 40 feet wide and 26 miles long.

Clays.—Almost every county has deposits of rich and beautiful clays for manufactures. A million and a half dollars is now invested in factories making clay products, and giving steady profits.

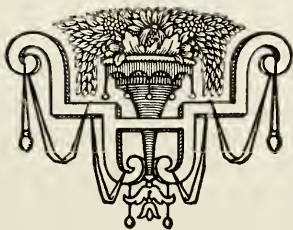
Oils.—In Uintah County, on the newly opened Indian reservation, is found an extensive deposit of fine lubricating oil, obtained by sinking wells to a short depth. In Juab, Washington and other counties crude petroleum has been discovered, and development has begun in an extensive way.

Iron and Sulphur.—There are iron deposits in Cache, Wasatch, Morgan, Iron, and other Utah counties. Iron County has the largest iron deposits in the world, a Pennsylvania expert estimating the body of iron ore in one section of this county at 400,000,000,000 tons. Iron County ore is magnetite and hematite, and occurs in a belt 3 to 4 miles wide and nearly 20 miles long. Great and valuable deposits of sulphur have been disclosed in Millard County, and a very important sulphur-shipping industry has been established.



Commercial Conditions

That the commercial transactions of Utah give indisputable evidence of the marked prosperity of the people is shown by the banking business, and by the regular dividends paid by commercial and industrial corporations. The bank clearings in the past five year—1904-5-6-7-8—aggregate over \$1,300,000,000; the savings deposits of the people at the end of 1908 exceeded \$15,000,000, or nearly \$42 per capita, and have been augmented considerably in 1909; the commercial and industrial corporations—exclusive of private enterprises which do not make public returns of profits—exceeded \$2,000,000 in dividends in 1908. This does not include dividends from mines or quasi-public corporations such as telephone, electric light and power, and transportation companies.



Transportation and Communication

Railroads enter 21 of the 27 counties in Utah, and further extensions are being pushed. Salt Lake City and Ogden are connected by three distinct railway systems. The railway mileage of the State now exceeds 2500 miles, and rates of transportation for passengers and freight are as favorably arranged as in any other state, all things considered. The territory tributary to the Utah markets embraces about 300,000 square miles, taking in the greater part of Idaho, Western Colorado, Western Wyoming, and Eastern Nevada. The distances from Salt Lake City to the nearest rival trade centers are:

Denver, Colo.....	629 miles
San Francisco, Cal.....	823 miles
Los Angeles, Cal.....	773 miles
Portland, Ore.....	902 miles
Spokane, Wash.....	922 miles
Butte, Mont.....	434 miles

As supply points, Salt Lake City and Ogden are in the same zone for this vast area.

Freight rates are favorable to the central points in this territory, and Utah merchants, manufacturers and farmers supply their products therein to better advantage than do outside competitors. This accounts for the fact that the jobbing trade of Salt Lake City in 1907 and 1908 exceeded \$50,000,000 for each year, while Ogden came close to \$25,000,000 for the same periods. Fruits, sugar, salt, coal, dairy and farm products, and manufactures, aggregating many millions of dollars, are shipped to points outside, each year; and yet the production in Utah is unequal to the de-

mand. With the freight rates prevailing, Utah hay finds market in Butte and tributary territory, Utah condensed milk factories send a large proportion of their product to Los Angeles, Utah wheat goes in trainloads to San Francisco, Utah canned fruits and vegetables have profitable field in the Mississippi Valley States, Utah sugar is abundantly on the Chicago market, Utah fruits are disposed of in the middle Western as well as in the Western States, and so on, with no surplus stock held over in the manufacturer's hands. For illustration, in the matter of canned fruits and vegetables put up by the 22 canneries in the territory close to Salt Lake City and Ogden, it is announced that the pack for the present season, 1909, was sold before May 15, yet the factories had scarcely opened their doors to prepare for the season's work.

Market Expansion.—It is beyond dispute that the market expansion in this territory tributary to Utah producers is proceeding more rapidly and definitely at present than is the means of supply. The great development of the mining industry with proportionately increased returns because of cheapening in the methods of reduction and smelting, and the associate commercial growth, alone creating a market with greater rapidity than the manufacturers, horticulturists and farmers of Utah are being prepared to meet it, notwithstanding the expansion of dry farming, fruit raising, and kindred operations; and to cope with this increased demand outside sources of supply must be called upon, or men of energy and enterprise, seeing the certainty of a good and profitable field in Utah, will enter therein, and join the ranks of the State's prosperous producers.

In the way of passenger communication, both as to cost and facility, the condition is quite as satisfactory as in freight matters, and improvement is constant from year to year.

Communication by telephone is now an indispensable part of business life, and no place is better, if as

well, provided for in this respect than is Utah and the territory conveniently tributary thereto. Telephone companies having their main offices in Salt Lake City penetrate the entire territory described, with prompt and clear service, at reasonable rates.

These Come Every Year

Here are a few of the standard securities located in and around Salt Lake City and Ogden that come annually with dividends, the record for 1908 being: Amalgamated Sugar Co., preferred, 6%; common, 8%; Beneficial Life Insurance Co., 4%; Barnes Banking Co., Kaysville, 14%; Consolidated Wagon and Machine Co., 10%; Commercial National Bank, 12%; Deseret National Bank, 17%; Deseret Savings Bank, 36%; Davis County Bank, Farmington, 12%; First National Bank, Ogden, 12%; First National Bank, Murray, 8%; First National Bank, Logan, 10%; Home Insurance Co., 12%; H. J. Grant & Co., 12%; Lewiston Sugar Co., 4%; National Bank of the Republic, 8%; Nephi National Bank, 3%; Ogden Savings Bank, 8%; Pingree National Bank, Ogden, 12%; Provo Commercial and Savings Bank, 10%; Salt Lake Security and Trust Co., 7%; State Bank of Utah, 14%; State Bank of Brigham City, 12%; Sugar City Townsite Co., 8%; Thatcher Bros. Banking Co., Logan, 10%; Utah Banking Co., Lehi and American Fork, 9%; Utah-Idaho Sugar Co., preferred, 7%; Utah County Light and Power Co., 8%; Utah Savings and Trust Co., 6%; Walker Bros. Bankers, 14%; Western Loan and Savings Co., 10%; Zion's Savings Bank and Trust Co., 24%; Zion's Co-operative Mercantile Institution, 12 per cent.

With the Farmers

Utah has 21,900 farms covering a combined area of 2,114,364 acres; this is out of an approximate cultivable area of 20,000,000 acres. About 17,500,000 acres of this is outside of the irrigable area, except as the latter may be increased by Government, State, and private reclamation enterprises which will impound or store the water in natural or artificial reservoirs, for retention till its use in the irrigation season can make it of direct benefit. At the present time there are in process of construction reclamation projects of this class that will provide water for irrigation for 700,000 acres. The completion of these, which will be accomplished in from two to five years, will add one-third to the present cultivated area. The present unimproved acreage of the State gives forage for a great portion of Utah's 2,857,314 sheep, 408,560 cattle, and 122,347 horses.

Some of the Crops.—Utah has three climatic zones. In the southern part of the State, grapes, peaches, figs, almonds, pomegranates and cotton grow. In the northern valleys, wheat, oats, barley, sugar beets, vegetables, apples, cherries, grapes, peaches, pears, apricots, plums, berries, thrive. In the central zone, hardy cereals, vegetables and fruit are grown successfully. Alfalfa does well everywhere, and is the stable farm product of the State, yielding three and four crops annually in Southern Utah, two and three in the north, and two in the upland districts in the central portion of the State. By irrigation, soil originally barren has been made to produce such crops as these per acre: Sugar beets 33 1-3 tons; alfalfa 71-2 tons; potatoes 900



LATTER-DAY SAINTS' UNIVERSITY
 AGRICULTURAL COLLEGE, LOGAN
 UNIVERSITY OF UTAH

bushels; onions 1100 bushels; peaches \$400; cherries \$975; raspberries \$800; strawberries \$800; grapes \$1200; wheat 65 bushels; oats 80 bushels.

Actual Yield in 1908.—The average yield in 1908, per acre, was: Wheat 28 bushels; oats 40 bushels; barley 30 bushels; corn 35 bushels; rye 26 bushels; potatoes 170 bushels; sugar beets 12 tons; hay 3 tons.

The value of the farm, fruit and garden crops in the year 1908 exceeded \$30,000,000; in addition to this, the wool clip and range stock sold realized over \$7,000,000. With relatively increased population and like energy to do the work, the farm, fruit and garden products could, within five years, be trebled; that is, during the next five years the agricultural population of Utah could be trebled and the whole body be as prosperous as is the present population in that class.

Turning Water into Wealth

The productiveness of land in Utah is due largely to the application of a system of irrigation adopted by its early settlers, and which has been imitated by nearly all the Western States. Utah's two millions of acres of cultivated land is subjected to periodical surface flooding from mountain streams, valley rivers, and the water stored in reservoirs each season. The farms are artificially drenched several times a year, according to the necessities of the nature of the soil and the humidity of the season. This is accomplished by means of a system of co-operative canals and head-ditches.

Practically all the private reservoirs, streams and canals in Utah are owned and operated co-operatively, and are exempt from taxation; so the only cost that falls on the farmer is the labor of maintaining the conduits and turning the water upon his fields at proper

intervals. With scientifically constructed canals and good head-ditches the distribution of the water over the land is an easy task, and involves but a fraction of the work devoted in wet climes to cultivating and harvesting. Irrigation places the husbandman practically beyond the vicissitudes of the weather, and gives the crops the benefit of the moisture and sunshine at the same time.

Under the reclamation act passed by Congress, the United States Government loans money to the prospective occupants of the land at the rate of \$10 per acre, for the construction of reservoirs, canals and ditches. The settlers have ten years in which to repay the loan, and then become the owners of the water in fee simple, having to bear only the cost of maintenance. The fund is self-perpetuating; when the loan for one project is returned it is available for use in another.

Government Reservoirs.—When the reclamation projects at present planned by the general Government within the State shall have been completed, the cultivated area of Utah will be greatly increased; they include: Strawberry Valley reservoir, 50,000 acres; Bear Lake reservoir, 200,000 acres; Utah Lake reservoir, 50,000 acres; Weber River reservoir, 100,000 acres. This reclamation program covers lands in the northern part of the State, where the climate and conditions are the best, where the bulk of the population is massed, and where the markets are most accessible.

The Strawberry Valley project, which is now nearing completion, includes a dam across the south end of Strawberry Valley, east of Utah Valley, 350 feet long and 45 feet high, which will impound the waters of Strawberry River, forming an artificial lake covering ten square miles. The outlet will be through Spanish Fork Canyon into Utah Valley by means of a tunnel 20,000 feet through the mountain range. It will furnish water for 50,000 acres, and will cost about \$2,000,000.

000. The land to be reclaimed lies in the midst of cultivated districts, but has been unused hitherto on account of scarcity of water; it is highly productive, especially for sugar beets, fruit and grain. Watered land in the vicinity sells for \$100 to \$200 per acre.

The Bear Lake project involves the storage of the surplus water of Bear River, the largest stream in the State with the exception of the Colorado. It will reclaim 200,000 acres of land and will cost \$5,000,000; it includes the main dam, three diversion dams, and 150 miles of canals. Three States are interested, but the land to be reclaimed lies mainly in Utah, consisting of areas along the Bear River in Marsh, Western Cache, and Malad valleys. The land is open to settlers, and is provided with good railroad facilities.

The third project is the Utah Lake enterprise. Thirty streams rush down from the Wasatch Mountains and spread over the 125 square miles of surface constituting Utah Lake. Three-fourths of all this water is lost by evaporation, and the remainder, flowing into the Jordan River, waters the Jordan Valley. The plan is to impound the spring waters, and enough water will be obtained in this way to irrigate 50,000 acres of land in the northern part of Utah County and the southern part of Salt Lake County, within the populous districts.

The Weber River project is intended to bring under cultivation 100,000 acres. The Weber River is second in size only to the Bear. The spring high water, of which there is great abundance, will be controlled by a dam near Henefer, Summit County, from which a stream will be released during the irrigation season far greater than the flow of Weber River during the low water, and which will supply water to land in Davis and Weber counties, also within the populous district of the State.

Other Irrigation Works.—At present there is over \$20,000,000 private capital invested in irrigation.

works in Utah, every system of which is bringing profitable returns. Additional projects are being worked out everywhere, and the State, as well as the National Government, is expending vast sums in this direction.

The Sevier River dam, near Dover, completed by private enterprise with the aid of the State, is now practically ready, and furnishes water for 40 miles of main canal, covering 90,000 acres of land in Millard County. This land, before irrigation, was valued at 50 cents to \$1.50 per acre, with few who cared to invest in it at that price. Its average value now, with the water right provided, is \$100 per acre; and cultivated farms from the heretofore desert country are being brought into existence all over that section as fast as workers can be found to occupy them.



Arid Farming

Arid, or dry, farming has been demonstrated to be a marked success in the non-irrigable areas of the State. Until recently, but few Utah farmers would venture outside of the irrigable area; there was some "dry farm" cultivation, attended with considerable profit, but success therein was generally credited to local conditions which provided sub-irrigation, etc., and not to any system of cultivation which could be relied upon to make the "dry" lands yield regular crops.

The theory of systematic cultivation, however, was taken up by Dr. John A. Widtsoe, then director of the State Experiment Station and now president of the State Agricultural College, and Prof. Lewis A. Merrill, then and now connected with the agronomy department of the Agricultural College, who made a thorough investigation, and declared that outside of the irrigated area of the State, Utah has 20,000,000 acres that will grow the following crops without irrigation; Wheat, oats, barley, rye, alfalfa, corn, speltz, sugar beets, grasses of various kinds, kaffir corn, barnyard millet, vetch, and dwarf Essex rape. This conclusion was the result of careful experiments at six dry farm experiment stations established by the State and operated in 1904; they were located in Iron County, where the precipitation of moisture was 13.14; in Juab County, where it was 11.11; in San Juan County, where it was 10.26; in Sevier County, where it was 10.58; in Tooele County, where it was 16.56; and in Washington County, where it was 11.19 inches. Every quarter of the State, every kind of soil, and every variety of the State's climate were represented. The

result of the first year's experiments was a complete success with every crop, as follows: Spring wheat, per acre, 8 to 21.25 bushels; fall wheat, 9.6 to 23.83 bu.; oats, 8.91 to 36.01 bu.; barley, 5.13 to 34.9 bu.; rye, 11.55 to 14.04 bu.; speltz (an arid grain), 17.68 to 23.55 bu.; corn, 25.93 bu. Spring-planted alfalfa developed an excellent stand; surprising results were attained in sugar beet growing, many of the beets weighing 2½ pounds and over.

Upon this showing, arid farms were taken up, and dry land which five years ago was a drag upon the State Land board's hands at \$1.50 per acre cannot now be purchased from the "dry farmers" at \$25 per acre. In one field of this kind, in Juab County, in 1908, 200 acres of land produced an average yield of 35 bushels of wheat per acre; a field of 300 acres produced an average of 31 bushels of wheat per acre; and in thousands of acres cultivated by the new dry farming process, the results have varied from 8 to 35 bushels of wheat per acre.

Dry Farm Homesteads.—The new provision of the national homestead laws known as the Smoot land law, secured through the intimate knowledge had by Senator Smoot of the actual conditions on the dry and heretofore uncultivated areas of Utah, now brings within reach of profitable occupancy and cultivation most of the 20,000,000 additional acres reported upon by Dr. Widtsoe and Prof. Merrill. Under this provision, actual cultivation without actual residence (which is impracticable during the five years of reclamation) enables the homesteader to secure 320 acres of land—a practicable unit for arid farming. With his 320 acres producing 10 to 35 bushels of wheat per acre, it is easy to discern that such a farmer will ere many years devise some method of securing a sufficient supply of water for domestic use, and for the irrigation of a fair-sized orchard and garden patch, as is now actually being done on the once barren Juab County wheat farms.

In the great untaken stretches of land in Utah, water for culinary, garden and live stock purposes can be obtained by the sinking of artesian wells. Several of these already have proved an unfailing source of supply in Tooele, Juab, Millard, Beaver and Iron counties, where most of these lands lie.

Utah Sugar Brings Money

The beet sugar industry in Utah is increasing steadily, notwithstanding its present extensive proportions, for the Utah farmer finds the growing of sugar beets a profitable business, the certainty of the crop making this class of farming more desirable than some others. Here is a table showing Utah's beet sugar record for 1908—a record which is being surpassed in 1909:

Total acres planted, 1908.....	31,589
Total tons beets delivered at factory.....	403,000
Average yield per acre, in tons.....	12 2-3
Total capital invested.....	\$9,000,000
Paid farmers for beets.....	1,837,750
Paid freight on beets.....	91,000
Paid to factory employes.....	550,000
Output of sugar, in pounds.....	91,000,000
Value of refined sugar, at 4½c. per lb.....	\$4,095,000

By factories, the output of sugar in 1908 was: Ogden, 15,000,000 lbs.; Logan, 14,000,000 lbs.; Garland, 17,000,000 lbs.; Lehi, 28,000,000 lbs.; Lewiston, 17,000,000 lbs. The Utah-Idaho Sugar Company also operates sugar factories at Sugar City, Idaho Falls, Blackfoot, and Nampa, Idaho, where 52,423,500 pounds of sugar was produced in 1908.

The highest average of sugar beets grown per acre in 1908 was by the farmers who grew them for the Ogden, Utah, plant, 13½ tons being the figure; Garland came next, with 13 tons; Lehi next, with 12.7 tons;

Logan and Lewiston stood together with 12 tons each; and the Idaho fields yielded from 11 tons per acre downward.

The Utah farmer makes an average profit, above the cost of plowing, seeding, cultivating, irrigating and delivering to the factory, of \$15 per acre, based on a yield of 12 tons—the lowest average at the Utah factories. The extensive acreage being opened by reclamation projects in the State will clear the way for the erection of additional sugar factories, already projected but not proceeded with because of present inability to obtain a sufficient acreage of beets.

Range Live Stock

In 1908 there were in Utah 408,660 head of cattle, 122,347 horses and mules, and 63,618 hogs, an increase of 50% in five years. Formerly the 45,000,000 acres of Utah public domain afforded a range for the cattle of the section of a quality to permit them to exist summer and winter without care. Now, however, a fine grade of stock is taking the place of the former scrubby range cattle, and is being cared for in the pastures and cultivated areas. Winter feeding is a regular feature of the industry, and better prices prevail. Utah has unlimited market for her livestock.

Hogs.—Hog-raising proves remunerative in Utah, although the industry is far from being extensive, in comparison with others. The demand in and around Utah for pork makes hog-raising an inviting field.

Sheep and Wool.—The sheep industry at present appeals to the investor rather than to the farmer, for the reason that to attempt to handle less than 2,500 sheep, worth \$10,000, on the great free range in Utah would be unwise. Notwithstanding this, sheep-raising has been a profitable occupation, as is evidenced by

the growth of the business, which in 1908 had 2,857,314 sheep with a total value of \$11,143,525, and a wool clip which brought \$3,000,000. The income in wool from a sheep averages a little more than \$1 per year; then there is the increase in numbers of the flock. Utah has many men who have become comparatively wealthy in the sheep business.

Facts for Fruit Raisers

In the year 1908 Utah had 27,668 acres of land devoted to horticulture, with a product valued at \$1,693,000, or an average of \$61.16 per acre. But this does not show actual results accruing to those who engage in the fruit-growing business, the figures given being obtained through counting in orchards on farms and at dwelling places where no record of returns is kept, and where negligent methods of cultivation frequently prevail, thus reducing the reported average of returns to less than half of the actual sum. There are few fruit growers in the State who do not exceed an annual profit of more than \$100 per acre on fruits; and this sum can be increased considerably by proper care in cultivation and marketing. For instance, in 1908, W. Holbrook, of Bountiful, 10 miles from Salt Lake City, marketed \$800 worth of cherries from one acre, the fruit finding ready sale. A conservative estimate of returns to the fruit-grower is made by the State Board of Horticulture, as follows: Strawberries \$300 to \$500 per acre; raspberries \$300 to \$800; peaches \$200 to \$300; cherries \$250 to \$350; apples \$300 to \$400; grapes \$200 to \$500. In addition to the counties of Davis, Salt Lake, Weber, Box Elder, Sevier and Utah, heretofore known as the banner fruit-raising counties, the new and extensive irrigation projects along the Green River are making Carbon and Emery counties, heretofore

practically without fruit, one of the most profitable and extensive fruit-raising sections of the State.

The populated centers and mining camps of Utah and neighboring States afford an unfailing market for Utah fruits. As yet, this State has not been able to supply the home demand, California being an active rival in the local market, at good prices. Utah fruits, grown as they are in a dry climate, where 90 per cent. of the days are bright, are famed for their quality and flavor, and sell in eastern markets at a premium.

Grain and Vegetables

The wheat yield of Utah in 1908 was 6,072,220 bushels, bringing 78 to 90 cents per bushel to the grower; 75 per cent. of this quantity was shipped to points outside of the State. Oats yielded 2,116,920 bushels, which ranged at about the same prices as wheat. Barley had 326,910 bushels, corn 360,360 bushels, rye 78,000 bushels, all of which brought good prices. Potatoes yielded 2,040,000 bushels, at a market value of over \$1,000,000.

Vegetable Gardening.—The garden products of Utah in 1908 were figured at a value of \$630,067, in the raising of which 11,521 acres was used, thus giving an average yield of \$55 per acre. But this does not represent actual vegetable gardening results. There are Chinese gardeners close to Salt Lake City who are making \$800 to \$1000 per acre; and the Caucasian gardeners in Davis County, between Salt Lake City and Ogden, get \$400 to \$500 per acre by comparatively easy methods which enable them to care for and market the product of 3 to 5 acres. In 1906 a young man from Centerville, Davis County, 16 miles from Salt Lake City, accepted a position in the latter place at \$1200 a year, as bookkeeper—a position for which he had

fully qualified himself. Early in 1907 he resigned, refusing an increase in salary, to go into vegetable gardening (in which he also had had a training), because the latter was the more profitable of the two; and at the close of 1908 had earned more in the two years than three years of the increased salary would have given. This is a lesson of what competency and well-directed energy can do in this line in the locality named.

Dairies and Creameries

During the year 1908 the dairy industry made rapid strides forward, in the way of a considerable addition to the State's dairy farms, both in number of these and in the increase of dairy cattle, notably Jerseys, Guernseys, and Holsteins. Utah's dairy products in 1908 exceeded \$2,000,000 in value, yet did not meet the market demand in quantity, so that outside products found in the State a profitable field. Conditions in Utah are essentially favorable to dairying. The clear, dry atmosphere and plentiful sunlight are great promoters of health among the animals; and Utah possesses the advantage of the cheapest dairy food in the world, alfalfa.

The present value of dairy-farm property in the State exceeds \$5,000,000, and nearly 200,000 acres of cultivable land is included in the list of dairy farms. The annual product of butter approximates 6,000,000 pounds, and of cheese 2,000,000 pounds. The two condensed milk factories are officially voted as having the highest standard product in the United States, in purity and quality; this condition is due in great measure to favorable climatic conditions. Every well regulated dairy farm is a money-maker, and there is room for many more such.

Bees and Honey

The honey-gathering industry in Utah has not reached very extensive proportions, notwithstanding the favorable conditions, and there is room for great development in this line. In 1908, the output of honey was 1,500,000 pounds; the local market demand during the year greatly exceeded this supply, and every pound of Utah honey found ready sale. There is both room and opportunity for a great development in the honey-producing industry, on the part of those who know something about the care and management of bees.



Place for Poultrymen

During the past three years the Utah State Poultry Association has done much to improve poultry raising in the State, and has had a good field in which to operate; for although Utah has most favorable conditions for the poultry industry, there was little systematic interest taken therein until recently. The value of poultry and poultry products for 1908 was approximately \$600,000; but the demand for fowls and eggs is far beyond the present ability of local poultrymen to supply. Large amounts of eggs and dressed poultry are brought into Utah each year from points as far east as the Mississippi River. The price of eggs in Salt Lake City during the present year, 1909, has ranged from 25 cents to 55 cents per dozen; the average price of dressed chicken has been 15 cents per pound.

There are many excellent opportunities for profitable poultry farms, operated by those who are familiar with the business, and no prospect that the market will be satisfied by any amount of the home product for years to come. All the standard varieties of fowl do well. Alfalfa has proved to be one of the best green foods for poultry, and is easily and cheaply supplied.

Instruction in Agriculture

The State maintains an Agricultural College at Logan, and, in connection therewith, two agricultural experiment stations and six experimental dry farms. The 119 acres comprising the college ground is occupied by 20 buildings, where 900 students received instruction in the school year 1908-9. Agriculture, domestic science, commerce, engineering, general science, manual training, domestic arts, mechanic arts, agronomy, horticulture, veterinary science, stockfeeding, poultry raising, stock-judging, entomology, irrigation and farm accounts, are the branches taught. The enclosures at the college grounds are partially occupied by horses, cattle, sheep, hogs, and poultry, and most of the ground is devoted to experimental farming. Free bulletins, detailing the work of the experiment stations, are sent to farmers and others. Farmers' Institutes are held in every county, under the auspices of the college, and instruction is given by a corps of well qualified teachers.

The State Agricultural College is headed by Dr. John A. Widtsoe, than whom there is no higher or better authority in the United States on agricultural matters; and the Utah institution ranks among the foremost in the country.

Agricultural instruction is also given in some of the private schools in the State.



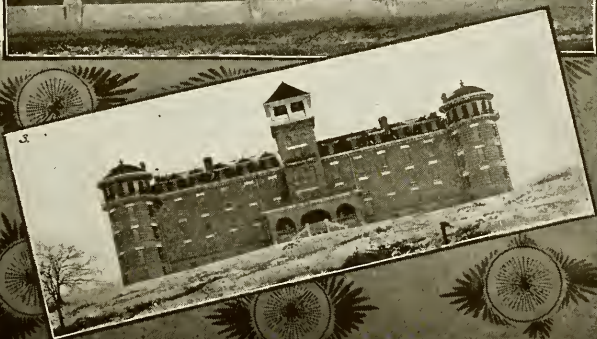
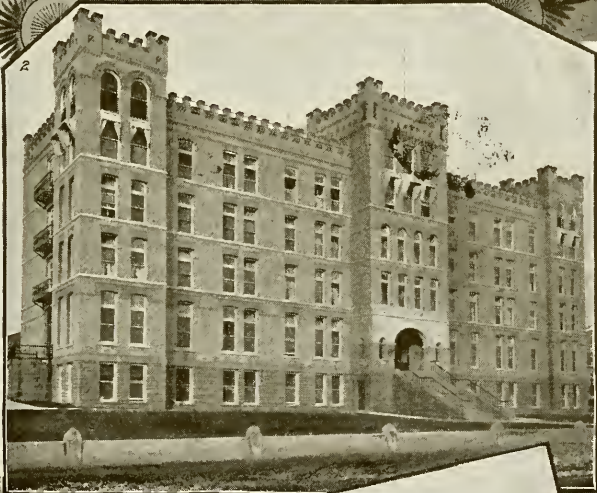
Some of Salt Lake City Schools

The Public Schools

No State in the Union is provided with better common school facilities than is Utah. Three months after the first company of pioneers entered Salt Lake Valley, a school was established; and to-day there are free schools conveniently located in every part of the State, so that a comprehensive common school education is within the reach of every child. Under these conditions Utah ranks with the best of the States in the percentage of educated persons.

During the past eight years, \$1,736,463.23 has been expended in the State for new school buildings, and the valuation of public school property in 1908 was \$3,398,565.89. Forty-eight new school buildings were erected in 1908, at a cost of \$709,152.95. The average expenditure per capita, by the State, was \$23, in each of the past two years, for the maintenance of the public schools, the sum of \$2,183,965.64 being expended for school purposes in 1907, and \$2,329,965.99 in 1908. Only competent teachers are employed, and good salaries are paid. Text books are furnished free by the State.

The chief institution of the State's public school system, the University of Utah, located at Salt Lake City, is one of the best equipped educational institutions in the West, and students attend there from all the surrounding States; it includes a school of arts and science, school of mines, and normal school. High schools are maintained in the different parts of Utah, and the steady trend of the people is to bend every necessary energy in giving to the children the very best opportunities that can be afforded by any school system in the United States.



1. Holy Cross Hospital

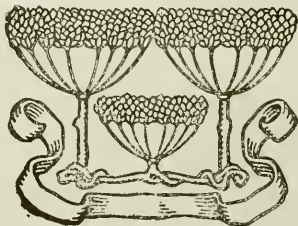
2. Latter Day Saints' Hospital

3. Judge Memorial Home

Other Schools.—The Latter-day Saints, or Mormons, have a church university at Salt Lake City and another at Provo; also a college at Logan, and academies in various parts of the State; the two universities and college give instruction to more than 3000 students each year. The Catholics also have a complete system of education in the principal cities of the State, as do the Episcopalians, the Presbyterians, and the Congregationalists.

Hospitals

All the large cities and some of the smaller ones have excellent hospitals, many of them the enterprise of private capital. Of the larger ones, the Groves Latter-day Saints' hospital is operated under the auspices of the Mormon Church, St. Marks by the Episcopalians, and the Holy Cross by the Catholics, in Salt Lake City; while the Catholics have a large hospital at Ogden, and the Western Federation of Miners one at Park City. All these are supplied with a competent corps of physicians and surgeons.



Libraries, Churches and Clubs

The largest public libraries in the State are the Packard free library in Salt Lake City and the Carnegie free library in Ogden. Besides these, several of the smaller cities are accumulating excellent libraries, through a system of taxation. The State University and Agricultural College also are well provided for in accessible libraries.

Churches.—Utah is quite as well provided with church buildings, both in quality and number, as any place in the United States, and all the orthodox churches are well represented. The Catholic Cathedral in Salt Lake City is one of the finest buildings in the State, and the First Presbyterian Church building in Salt Lake City ranks close to it. The other denominations are all provided with beautiful and commodious edifices in which to worship, and the utmost freedom exists as to church membership or affiliations. In addition to the large Mormon Tabernacle in Salt Lake City, the Latter-day Saints have fine church buildings in every city, town, village, and hamlet, which are free to all who wish to attend.

The Y. M. C. A. is a thriving organization; its building in Salt Lake City is an imposing edifice, well furnished for its uses.

Clubs.—Commercial Clubs, for business, and the Alta Club, University Club, Weber Club, and others, for social purposes, both for women and men, all perform an important part in the life of the people, to the satisfaction of every refined and cultivated taste.

Good Roads in the State

Utah has had its share of experience with bad and indifferent roads, which has impelled the people to effective action. During recent years some of the best roads in the country have been built in Utah, at much less cost than in other States, because of the readier general availability of good road material; and the Legislature of 1909 enacted laws providing a system of good road construction which is not excelled, if, indeed, it is equaled, by any other State in the Union. The system provides cross-sections, sidewalks, tree and ditch spaces, curb and hitching-post lines, grades, drainage, culverts, bridges, etc., that are a pattern for the most desirable in road construction; and its practical use in the larger counties, notably near Salt Lake City, has demonstrated how thoroughly and satisfactorily the perplexing road problem has been solved there. It is a good illustration, out of many good ones, of how people in Utah are doing things and how they have the wherewith to do; and here it may be further remarked that Utah people are far from being averse to sharing their advantages with others, for whom there is abundant room and opportunity, and a cordial welcome.

Just a Touch of Comparison

Utah's production of what may be classed the "money metals" is better in the line of averages than is that of any other State in the Union. For instance, Utah ranks sixth in the quantity of gold produced, but the five States and Territories that lead her in that metal trail away behind in the yield of lead and copper, while only one of them passes her in silver, in which she stands second. Utah also is second in the production of lead, but the one State which exceeds her in this metal is away down the column in the gold, the silver, and the copper. Utah is fourth in the copper column, but the three States that outrank her in this are far to the rear in gold, silver and lead. Thus, as stated, in the metals named Utah holds an average utilitarian position superior to any other State.

Other comparisons may be made, all to the same end. Thus, Louisiana leads in the production of zinc, Utah coming next; but Louisiana is distanced by Utah in the gold, silver, lead and copper mined. Three States exceed Utah in the amount of beet sugar manufactured, each of those States having so much larger numbers in population and acres of cultivated area that if the basis were made on the proportion of these to each, Utah would outstrip them in all the comparison. "This State is now the leading producer of mineral waxes in the United States, and its output is competing seriously in the varnish and insulating trades with the best product of the West Indies and Germany," is the way The Mineral Industry puts it regarding still another class of production; and this matter of comparisons might be carried to a much greater length.

all showing to the advantage of Utah along the line indicated, as a place of abundant opportunities for prosperity in business, industrial, and home life, excelled by no other State.



